

REMARKS

Claims 1-12 and 14-41 are pending in this application. Of these claims, Claims 17-29 and 33-35 have been previously withdrawn. Claims 1-12, 14-16, 30-32 and 36-41 stand rejected. Applicant amends Claims 1, 30, 36, and 39-41. Claims 42-51 are new. Applicant respectfully requests reconsideration and favorable action in this case in view of the following remarks.

Claim Rejections - 35 USC § 102

Claims 1-5, 12-13, 15-16, 30, 32, and 36-41 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,417,692 to *Goble* et al. ("*Goble*"). Applicant respectfully traverses these rejections for the reasons set forth below.

Amended independent Claims 1, 30, and 36 along with new Claim 47 each include limitations generally directed to a screw portion of a bone anchor including a rounded interior surface enclosing a protrusion recess. The rounded interior surface includes a single, continuous recess thread extending a majority of a length of the protrusion recess. The recess thread is configured to rotatably retain a threaded component at least partially in the protrusion recess.

The Office Action contends that these limitations are disclosed by *Goble*, and that Figure 10 of *Goble* discloses "a protrusion with a hollow interior portion (19) with threads (see Fig. 10) configured to retain a component therein." Office Action at 2. The Office Action further contends that "the grooves [of Goble] may be identified as threads," and that Goble states "that the cavity is threaded." Office Action at 5.

However, the cited Figure of *Goble* does not disclose, teach, or suggest a single, continuous recess thread extending a majority of a length of a protrusion recess, the recess thread being configured to rotatably retain a threaded component at least partially within the protrusion recess. Rather, *Goble* discloses closely spaced grooves configured to allow the ring portion of a spring collet to seat and lock in the cavity. (Col. 6, lines 33-39). Thus, the

closely spaced grooves are configured to allow the components of *Goble* to snap together at a collet and barrel interface. (Col. 1, line 49; Col. 5, lines 38-39). *Goble* clearly does not disclose, teach, or suggest a single, continuous recess thread configured to rotatably retain a threaded component. *Goble* discloses “a bone fixation system to provide a system for coupling bone ends together.” (Col. 2, lines 28-29) (emphasis added). Such a system could not include a single, continuous recess thread configured to rotatably retain a threaded component, if the bone ends are to be in the correct anatomical position after they are joined. Accordingly, the cited sections of *Goble* do not disclose, teach, or suggest a single, continuous recess thread extending a majority of a length of a protrusion recess, the recess thread being configured to rotatably retain a threaded component at least partially within the protrusion recess.

For at least this reason, Applicant respectfully contends that *Goble* does not disclose, teach, or suggest each of the limitations of Claims 1, 30, 36, and 47. Accordingly, Claims 1, 30, 36, and 47, and their respective dependent claims, Claims 2-5, 39, and 48-51 depending from Claim 1; Claims 32 and 40, depending from Claim 30; and Claims 37-38, and 41, depending from Claim 36, are each allowable.

Amended dependent Claims 39, 40, 41, and new independent Claim 47 each include limitations generally directed to a shoulder formed where a protrusion meets a second end of a screw portion. The shoulder includes a continuous shoulder surface extending around a protrusion. The entire shoulder surface is oriented generally perpendicular to a longitudinal axis of a screw portion.

The Office Action contends that *Goble* teaches these limitations. It contends that reference number 18 indicates a shoulder portion. Office Action at 5. The Office Action further contends that “the portion 44 may be considered to at least comprise the top part of the thread 16, also creating a shoulder in regards to the invention.” Office Action at 5.

First, reference number 18 of Figure 9 shows ring 18 being part of hollow cylinder 15 and forming a spring collet. (*Goble*, Col. 6, lines 13-21; Figure 5). This does not disclose,

teach, or suggest, a shoulder formed where a protrusion meets a second end of a screw portion. Next, as is clearly shown in Figures 9 and 10, the top part of thread 25 is not approximately perpendicular to a longitudinal axis of body 16. Accordingly, Goble does not disclose, teach, or suggest a continuous shoulder surface extending around a protrusion. The entire shoulder surface oriented generally perpendicular to a longitudinal axis of a screw portion.

For at least this additional reason, Applicant respectfully contends that *Goble* does not disclose, teach, or suggest each of the limitations of Claims 39, 40, 41, and 47. Accordingly, Claims 39, 40, 41, and 47, and their respective dependent claims, Claims 2-5 and 48-51 depending from Claim 39; Claim 32, depending from Claim 40; and Claims 37-38, depending from Claim 41, are each allowable.

Claim 12 includes limitations directed to a driver recess that is configured to retain an insert positioned at least partially within a threaded protrusion recess of the protrusion of the bone anchor. The insert provides a friction fit between the driver and the bone anchor during insertion of the bone anchor.

The Office Action contends that *Goble* discloses an insert that is capable of being inserted into the threaded bore of the bone screw portion. Office Action at 3. However the turning tool 23 shown in Figure 3 of *Goble* does not disclose these limitations as contended by the Office Action. Rather, the turning tool 23 of *Goble* has a "cavity formed therein whose interior wall is sided, like that of the sided tool engaging section 22, and is for making contact therewith to transfer tool 23 turning into member 11 or 12." (Col. 7, lines 38-41). Accordingly, *Goble* does not disclose, teach, or suggest a driver recess configured to retain an insert positioned at least partially within a threaded protrusion recess of the protrusion of the bone anchor to provide a friction fit between the driver and the bone anchor during insertion of the bone anchor.

For at least this reason, Applicant respectfully contends that *Goble* does not disclose, teach, or suggest each of the limitations of Claim 12. Accordingly, Claim 12 and Claims 16 and 43-46, which depend from Claim 12, are each allowable.

Claims 15 and 42 each include limitations directed to a distance between a driver edge and a rim that is approximately equal to a distance between a shoulder of a bone anchor and an end of a protrusion. When the rim contacts the surface of the bone during insertion, the end of the protrusion will be approximately level with the surface of the bone.

The Office Action contends that the driver 23 shown in Figure 3 of *Goble* discloses these limitations. Office Action at 3. However, the sections of *Goble* that discuss the driver 23 do not disclose, teach, or suggest a distance between the driver edge and the rim of the driver that is approximately equal to a distance between the shoulder of the bone anchor and an end of the protrusion. (Col. 7, lines 34-41 and lines 56-61).

For at least this reason, Applicant respectfully contends that *Goble* does not disclose, teach, or suggest each of the limitations of Claims 15 and 42, and therefore Claims 15 and 42 are allowable.

Claim Rejections - 35 USC § 103

Claims 6-9 and 14 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Goble*. Applicant respectfully traverses these rejections for the reasons set forth below.

Claims 6-9, and 14 depend from Claims 39 and 12 respectively and incorporate all the respective limitations thereof. In rejecting these claims, the Office Action relies on *Goble* as disclosing each of the limitations of each Claim's respective base claims. As discussed above, *Goble* does not disclose, teach, or suggest each of the limitations of the respective base claims, and the Examiner's shape and material obviousness arguments (with which Applicant does not agree) do not cure this deficiency. Therefore, Applicant contends that Claims 6-9, and 14 are allowable for at least the reasons discussed above with regard to their

respective base claims. Accordingly, Applicant respectfully requests that the rejections of Claim 6-9, and 14 be withdrawn.

Claim 10 is rejected under 35 U.S.C. § 103(a) as being unpatentable over *Goble* in view of U.S. Patent No. 5,662,683 to Kay ("Kay"). Claims 11, 31 and 37 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Goble* in view of U.S. Patent No. 6,333,971 to McCrory et al. ("McCrory"). Applicant respectfully traverses these rejections for the reasons set forth below.

Claims 10-11, 31, and 37 each depend from Claims 39, 40, and 41 respectively and incorporate all the respective limitations thereof. In rejecting these claims, the Office Action relies on *Goble* as disclosing each of the limitations of each Claim's respective base claims. As discussed above, *Goble* does not disclose, teach, or suggest each of the limitations of the respective base claims, and neither *Kay* nor *McCrory* cures this deficiency. Therefore, Applicant contends that Claims 10-11, 31, and 37 are allowable for at least the same reasons discussed above with regard to their respective base claims. Accordingly, Applicant respectfully requests that the rejections of Claims 10-11, 31, and 37 be withdrawn.

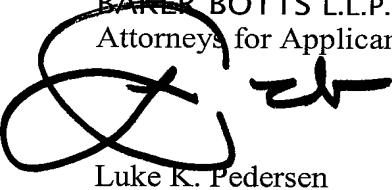
CONCLUSION

Applicant has made an earnest attempt to place this case in condition for immediate allowance. For the foregoing reasons and for other reasons clearly apparent, Applicant respectfully requests allowance of all pending claims.

The Commissioner is hereby authorized to charge the amount of \$1,690.00 as payment of fees required to file the Request for Continued Examination, ten (10) additional claims, and two (2) additional independent claims to Deposit Account No. 02-0384 of BAKER BOTTS L.L.P. The Commissioner is also authorized to charge any additional fees or credit any overpayment to Deposit Account No. 02-0384 of BAKER BOTTS L.L.P.

If there are matters that can be discussed by telephone to further the prosecution of this application, Applicant respectfully requests that the Examiner call his attorney at the number listed below.

Respectfully submitted,


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